REPORT AND RECOMMENDATIONS
MATERNAL AND CHILD HEALTH TASK FORCE
OF THE
MISSOURI RURAL HEALTH COALITION
INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

In December, 1991, an infant born three months prematurely was being discharged after many weeks in the hospital to go home to northwest Missouri from the University of Missouri Hospital. It took a neonatal nurse four hours to locate a physician in the area who was willing to take over the care of this infant. The physician who finally consented to take the case was located 60 miles from the family's home. Although other resources were closer, these physicians refused to accept the referral, presumably because this family received Medicaid.

INTRODUCTION

Increasing numbers of mothers, infants, and children in Missouri currently encounter multiple barriers in obtaining access to primary, essential health care. These stumbling blocks are particularly acute in the rural areas of Missouri.

In 1989, the rate of inadequate prenatal care was 17.6% in Missouri as a whole. According the Missouri Department of Health (MDOH, 1990) in many rural Missouri counties, 24% to 38% of pregnant women had inadequate or no prenatal care at all. The Missouri Perinatal Association (MPA, 1990) reports that infants born to women who do not receive prenatal care are three times more likely to be low birth weight. The primary cause of low birth weight is preterm birth, defined as birth occurring before 37 weeks of gestation.

Low birth weight, a major cause of infant death, has remained stagnant in Missouri over the past few years, at a rate of approximately 7% (MDOH, 1990). Low birth weight newborns (under 5.5 pounds) are more than 40 times more likely to die and very low birth weight newborns (under 3 pounds) more than 200 times more likely to die than normal weight infants (MPA, 1990).

In 1990, 79,135 babies were born in Missouri. Of these, 746 died before their first birthday (MPA, 1990). Missouri rates an alarming 31st in the United States in infant mortality with a rate of 9.9 infant deaths per 1,000 live births. This rate is congruent with national figures which places the United States behind such countries as Iceland, Taiwan, Malta and Singapore in infant death.

Significant disparity exists between racial groups in Missouri regarding these indicators of maternal and child health. Twice as many infants of minority races die during their first year of life. This phenomenon is also seen for rates of inadequate prenatal care and low birth weight. For example, pregnant women of color have a rate of inadequate prenatal care of almost 35% statewide.

The issue of cost cannot be ignored. The average cost for prenatal care is $500 per pregnancy. For each dollar spent for prenatal care, it is estimated that at least three dollars can be saved in the care of sick or premature newborns (MPA, 1990). One hundred thousand times that amount might be required for lifetime treatment of disabilities sustained as a result of preterm birth. Further the emotional costs are immeasurable.

The members of this task force, as well as other individuals and state groups, are dedicated to pursuing appropriate health care for mothers and children. We encourage an official statewide commitment, accompanied by adequate funding, to address and eliminate barriers to basic maternal-child health care in rural Missouri. We know from decades of experience what is required to reduce infant mortality. This is not a health problem—but rather a "social problem with health consequences" (Wagner, 1991, p. 3). Missourians can reduce our infant mortality by half if we choose to do so.

STANDARDS FOR MATERNAL-CHILD HEALTH SERVICES

Prenatal Care

Optimal standards for prenatal care are based on the recommendations of the American College of Obstetricians and Gynecologists (1992). These standards represent what is considered the gold standard necessary to enhance pregnancy outcomes in a normal 40-week pregnancy. The standards recommend a preconception visit to determine health status and emotional readiness for childbearing in both partners before pregnancy occurs. After conception, prenatal care should begin as soon as the pregnancy is verified, preferably during the first three months; the woman is then seen by the health care provider monthly until 28 weeks, bimonthly until 36 weeks, and then weekly until delivery for a total of 14-16 visits.

The core of prenatal care must be initial and ongoing risk assessment. Identification of high-risk maternity patients is crucial to prevent or reduce problems in mothers and infants. It is estimated that the potential for poor pregnancy outcomes can be identified 80% of the time during this period (American College of Obstetricians and Gynecologists, 1992). Careful and thorough risk assessment with early problem identification is sanctioned by all groups concerned with enhancing maternal-child health. A federal Expert Panel on the Content of Prenatal Care (1989) endorses the importance of extensive risk assessment for every maternity patient.

The dual concepts of risk assessment and health promotion also form the basis of the American Academy of Pediatrics (AAP) recommendations for routine health supervision of children and youth (MDOH, 1990). The AAP guidelines suggest 13 well-child visits with an appropriate provider from birth through age six and 15 visits up to age 11. A recent federal mandate expanded Medicaid coverage to all young children under a specified poverty line. As a result each state must offer all eligible children Early Periodic Screening, Detection, and Treatment (EPSDT) according to a plan determined by each state's Medicaid program (Wagner, Herdman, & Alberts, 1989). In Missouri, EPSDT includes financially eligible children from birth through age four.

During each child health visit, immunization status should be evaluated and immunizations administered as needed, per state guidelines. During its short history, immunization has proved to be an extremely cost-effective method of saving lives and lowering health care costs and improving the quality of life. Routine childhood immunizations include protection against diphtheria, tetanus, whooping cough, polio, measles, mumps, rubella, and most recently, Haemophilus influenza, an organism which causes many childhood illnesses including one kind of meningitis (Wagner, et al., 1989). A recent report from the Centers for Disease Control (November 22, 1991) recommends routine immunization of infants for Hepatitis B. However, this particular recommendation has not yet been included in the Missouri State Recommendations. Further, it is important to note that an estimated 20 to 25% of all two-year old children in the United States have not received recommended immunizations.

The health of mothers and children is a vital concern in both state and nation. Health care that begins prior to conception must continue beyond delivery and throughout childhood. A multidisciplinary, collaborative approach is encouraged to promote continuity, as well as to ensure comprehensive care.

EXISTING RESOURCES

The following information about Missouri's child health care resources came from primarily the Department of Health. Information was requested from all six of the public health district offices in Missouri as well as the Bureau of Community Health Nursing. Southeastern, Northeastern, and Eastern districts are summarized below. The remaining three public health districts were provided by Nancy Hoffman, R.N.,C. from Jefferson City, Missouri.

Southeastern District health educator, Kathy Garner, provided information through a compilation for the Department of Health. Most of the counties that do not have the child health conferences are Stoddard County and Howell County. Howell County is also the only county without a public health department. Ozark Medical Center gives that county's immunizations as well as their prenatal care. Stoddard County does have immunizations in their clinic, as well as WIC.

The Northeastern District information was provided by Joan Schlanker, R.N., at the Northeastern District Health Office and covers 21 counties in northeastern Missouri. In northeast Missouri, services are available either through the area health department or accessed through a clinic or another health department. Every one of the 21 counties in northeast Missouri does provide child health conferences. Family planning (or access to planning) is also provided except in Knox, Mercer, Monroe, and Schuyler counties. The counties that have no available prenatal care are Knox, Monroe, Ralls, Saline, and Schuyler.

The Eastern District information was provided by Blanca Domingorena, R.N., Community Health Nurse. She provided information for Jefferson, Franklin, St. Louis and St. Charles counties, as well as St. Louis City. These areas were very well covered with the exception of Franklin County where they have no STD education or treatment. St. Charles also has limited STD information. Adequate resources seem to be available within most of the three state areas whose public health office responded to our inquiry. But that is not the total picture. Some of the other factors that relate to the public use of these resources are:

- Hours of the clinics: Are they conducive for working parents?
- Transportation: Are they in an easy-access location? Is there a problem getting to and from the clinic?
- Public perceptions: Is there a preconceived notion of who is permitted to use these clinics? Is it known that care is available to all? Is there a perceived criteria that must be met before care can be received at these clinics?

There is no central information area where individuals can find out what is available in each area regarding questions like—Are employers willing to work with working parents to best utilize the clinics' services and timeframes? The total picture involves not just the resources that are available, but the mechanisms for getting people and resources together.

Two services in Missouri that are making a difference are Parents-As-First Teachers and the Women, Infant and Children Supplemental Food Program. Every school district in Missouri is required to have a Parents-As-First Teachers Program and every county except one in Missouri offers the Food Program. *The St. Louis Post-Dispatch*, on April 13, 1992, included an article entitled "Prenatal Care, Birth Weight Remains a Worry." Two thoughts in this article are relevant here. The article stated that one reason for the lack of improvement in prenatal care was that "few doctors treat Medicaid recipients or uninsured

women. We clearly need more obstetrical capacity for poor women," said William Kincaid, M.D., director of Health and Hospitals in St. Louis. "It is not a question of giving the insurance, which we've done. It is also a question of giving them access...One positive finding in this study is poor women who get food vouchers through Women, Infant and Children Supplemental Food Program will be more likely than others to get adequate prenatal care."

REGULATORY BARRIERS

"Nurse practitioners (and nurse midwives) can make positive contribution to the health care system...They enhance patient access services, decrease costs and provide a broader range of services. Certain consumers prefer the non-physician provider" (Graduate Medical Education National Advisory Committee, 1981). The use of mid-level practitioners such as nurse practitioners (NPs) and physician assistants (PAs) to provide care usually given only by physicians developed in the 1960s as a response to physicians. At the same time, certified nurse-midwives (CNMs), who had a 30-year history of care provision, began to increase in substantial numbers.

Nurse practitioners typically function under protocols that are collaboratively written with physicians. Evaluation indicates that these mid-level providers, within their areas of competence, provide care that is as safe and effective as that provided by physicians. Further, federal reimbursement, specifically for certified nurses in advanced practice, is available through Medicare, Medicaid, CHAMPUS (Civilian Health and Medical Program of the Uniformed Services), and FEHB (Federal Employee Health Benefit Program) (American Nurses Association, 1991). Unfortunately, numerous obstacles, such as nonsupportive physicians, and restrictive state statutes, thwart the type and amount of care provided by the nurse practitioners (Conway-Welch, 1991; Office of Technology Assessment, 1986; Wagner, 1991).

Rural Missourians currently receive a significant amount of care from nurse practitioners. For example:

> Rural health clinics currently opening in the Springfield—Branson and Hannibal areas are being developed and staffed by Master's prepared certified nurse practitioners.
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> In a three-county rural area (St. Charles, Warren, and Lincoln), a nurse is providing primary care to indigent residents. Three area physicians accept referrals as needed.
>
> A significant amount of prenatal care is provided to Missouri low-income women in county health department prenatal clinics operating under protocol.
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> In the southwest Ozark area, a nurse practitioner is providing well-baby clinics in three counties.

In recent years, however, the State Board of Registration for the Healing Arts has taken disciplinary action against a number of physicians who have authorized nurses to perform specific duties under protocol, particularly those protocols related to the delivery or prescription of medication. This type of activity, perceived by some as harassment, discourages collaborative practice and can seriously jeopardize access to health care services throughout the state, particularly in rural areas.

Another proposed legal hurdle comes from SB 849, a recently filed major revision of the Medical Art Practice Act. This revision states that 11 standing orders and protocols being used, regardless of the practice setting, must be submitted to the Missouri Board of Regis-

tration for the Healing Arts for their review and approval. The practice of qualified nurses providing care under standing orders and protocols has been upheld by the Missouri Supreme Court (Sermchief v. Gonzales, 1983). Continued harassment by the Board of Healing Arts will severely obstruct qualified medical and nursing providers in their ability to provide needed well-child examinations, immunization, and prenatal care services to rural population (Heimericks, 1991).

The Board of Pharmacy has advised pharmacists to ascertain if a physician is on site before a medication order from a nurse practitioner. This stipulation creates particular problems in rural settings where a physician is not always present. Of interest is the fact that although pharmacists are prohibited from taking these orders from a trained and registered health professional, they have not been advised to question orders called in by non-licensed office staff in a physician's practice setting.

RECOMMENDATIONS

Based on analysis of available information, as well as extensive discussion, this task force offers the following recommendations to the Missouri Office of Rural Health Advisory Commission. We believe that the promotion and support for the suggested measures will do much to increase the volume and enhance the quality of maternal and child health services in Missouri (National Commission, 1988). This list should not be viewed as comprehensive, but rather, as a bare minimum of actions necessary to improve the health status of rural women and children.

1. Surveys and structured interviews should be used to systematically identify barriers to maternal and child care specific to Missouri.

2. A system of central-linked data should be made available to health policy makers and health providers (e.g., information regarding immunizations, prenatal care, etc.).

3. Mandated comprehensive health education curricula should be developed for all public schools. These curricula must include mandatory family life education. Development should be a joint effort between the Department of Health and the Department of Elementary and Secondary Education.

4. The governor should be advised by ORHAC to identify geographic areas with high rates of infant mortality and declare them Infant Mortality Disaster Areas.

5. The State of Missouri should encourage and expand the use of certified nurse midwives and nurse practitioners. Appropriate legislation should be promulgated to enable their professional practice.

6. The use of mobile clinics is encouraged to facilitate increased access to care for those many rural residents with time and transportation constraints.

7. Reliable information regarding local services available to pregnant women and children should consistently be provided in grocery stores, pharmacies, other retail stores, and churches.

8. There must be establishment and/or expansion of training programs for those health providers who customarily practice in rural areas, e.g., nurse practitioners and certified nurse midwives.

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